REMARKS

In the present Amendment, claim 1 is amended, no claim is added, and claim 7 is canceled. Therefore, claims 1, 2, 4, and 5 are pending in the application, with claim 1 being independent.

Claim 1 has been amended to include subject matter requested by the Examiner. Specifically, claim 1 has been amended to recite that the recording layer includes In and Ge in addition to the previously-recited components. This subject matter finds support in the original application at, *inter alia*, paragraphs [0029] and [0046] of the published application, 2004/0053166. Claim 1 has also been amended to recite that the Mn in the recording layer is included in an amount of at least 18.7 at%. This subject matter finds support in the original application at, *inter alia*, paragraph [0046] of the published application.

Amendment Filed November 27, 2006, and Advisory Action Dated December 11, 2006

The Amendment filed on November 27, 2006 addressed all of the outstanding rejections in this application. Moreover, by reciting that Mn comprise at least 18.7 at%, the Amendment also complied with the Examiner's requests concerning "requiring at least 9.3% Mn" in the claims.

The Advisory Action dated December 11, 2006 indicated that the Amendment would not be entered, asserting that the Amendment raised new issues, and that it did not place the application into better form for appeal.

The Advisory Action did not apply any new rejection, but asserted that the application was not placed into condition for allowance because of a double patenting issue and "likely a 103" over US Patent No. 7,083,894. With reference to US Applications 2004/0208105, 2006/0078708 and 2004/0191689, the Advisory Action states that "the Applicant may wish to

submit terminal disclaimers on these and/or take care to keep the subject matter distinct between the applications."

The Advisory Action also notes that in view of the Amendment, claim 7 would not further limit the subject matter of claim 1.

The Advisory Action then concludes that "were these issues addressed and the amendment resubmitted . . . the application would likely proceed to issue."

It is noted that the Advisory Action does not raise or re-impose the rejections made in the Final Office Action. Accordingly, it is respectfully submitted that the Amendment of November 27, 2006, adequately addressed and disposed of these rejections. Because that Amendment was not entered, the arguments therefrom are incorporated in their entirety herein, such that the record clearly reflects the Examiner's consideration of the arguments. For the Examiner's convenience, the arguments are also reproduced below.

Interview Summary

Applicants would like to thank Examiner Angebranndt for the telephone interview held on January 17, 2007, with Applicants' representative, Paul Braier (hereinafter, "Applicants").

Applicants indicated that claim 7 would be canceled further to the Examiner's request.

Regarding the "likely 103" issue over US Patent No. 7,083,894, Applicants stated that a statement of common ownership under 35 US 103(c) would be submitted if possible. Such a statement is now included in the present Amendment, thus removing the '894 patent from being utilized in a rejection under 35 USC 103(a). Accordingly, it is considered that this issue has become moot.

Regarding the assertions concerning US Applications 2004/0208105, 2006/0078708 and 2004/0191689, it is noted that it would be improper at the present time to submit a Terminal Disclaimer.

Regarding the alleged double-patenting issue, Applicants noted that the pending claims recite crystal structure parameters not recited in the claims of the '894 patent. It was also noted that the claims of the '894 patent require the presence of silver, which the present claims do not require. Therefore, it was argued that the present claims are not obvious in view of the claims of the '894 patent, such that there is no double-patenting issue, and it would be improper to apply such a double-patenting rejection in this application.

The Examiner replied that it was his view that the atomic proportions recited in the '894 patent could result in the currently-recited crystallographic parameters. Applicants mentioned that crystallographic parameters do not generally vary in a continuous manner based on atomic proportions, but can change abruptly and discretely with varying atomic proportions. Applicants also pointed out that in any event, the Examiner's argument is more appropriate in a standard 103 obviousness rejection, and is simply not relevant to a double-patenting rejection. The Examiner acknowledged Applicants' points regarding crystallographic parameters, and volunteered that the crystal structure can also depend on the method of preparation.

Statement Under 35 USC 103(c)

Applicants submit that at the time the invention of the subject matter of Application Serial Number 10/657,232 (i.e., the present application) was made, U.S. Patent No. 7,083,894, was owned by, or subject to an obligation of assignment to, the same company. More specifically, both were owned by TDK Corporation.

As a result, U.S. Patent No. 7,083,894 is disqualified as prior art under 35 U.S.C. § 103(c). This follows because the '894 patent would otherwise qualify as prior art only under one of subsections (e), (f), or (g) of 35 U.S.C. § 102. It is further noted that 35 U.S.C. § 103(c) is available to the present application because the present application was filed September 9, 2003, after the November 29, 1999 effective date of 35 U.S.C. § 103. Thus, it is respectfully submitted that any rejection under 103(a) based on the '894 patent would be improper (if made), because the '894 patent is disqualified as a reference as set forth by 35 U.S.C. § 103(c) and MPEP 706.02(I)(3).

It is further noted that the Advisory Action alludes to a "likely" obviousness rejection, but does not actually make an obviousness rejection. Regardless that the '894 patent is not available as prior art, it is submitted at least because the '894 patent is silent as to crystallographic parameters, and because crystallographic parameters are known to vary in unpredictable ways with changes in composition, that the claimed subject matter is not obvious in view of the '894 patent.

The Alleged Double-Patenting Issue

The Advisory Action does not reject the present claims, but alleges, without making a rejection, that there is a "double-patenting issue" over the '894 patent.

As noted during the interview, the question in an obviousness-type double patenting rejection is whether the claims of the '894 patent render the pending claims obvious. This is clearly not the case for several reasons.

The claims of the '894 patent recite the presence of silver. The present claims do not recite any amount of silver. Further, the presently-pending claims recite crystallographic parameters not claimed (or even disclosed or suggested) in the '894 patent.

During the interview, the Examiner acknowledged that the present claims do not recite silver, but noted that the claims are open to inclusion of it. The Examiner also indicated his belief that if one were to pick an embodiment covered by the claims of the '894 patent, and having very low silver content, then the currently recited crystal structure would result. It would be an understatement to call this unsupported statement mere speculation. It appears that the Examiner would select an arbitrary embodiment of the '894 patent, modify its silver content to one extreme of the recited range, then make unsupported speculations about the resulting crystal structure. It is certainly ironic that all of these nested assumptions are being made in order to aver that something is allegedly obvious!

This is not what obviousness-type double patenting is about. Indeed, the tiers of speculation that one must go through themselves indicate that the current claims are not obvious in view of the '894 claims. It is respectfully submitted that there is nothing about the claims of the '894 patent that make the currently pending claims obvious.

Accordingly, a double-patenting rejection of the present claims over the '894 patent would be wholly inappropriate in this case.

Claim Rejections of August 25, 2006 – 35 U.S.C. §§ 102 and 103

JP-2003-237230 to SUZUKI et al.

Claims 1, 2, 4 and 5 are rejected over SUZUKI under 35 US 102(a), or in the alternative, under 103(a). The rejection states that SUZUKI shows 4% Ge, and that either this is sufficient to inherently meet the limitations of claim 1, or, in the alternative, that it would have been obvious to add In up to 10%, which would allegedly inherently result in a crystal with the recited ratio of *c/a*. The Office Action indicates that this rejection can be obviated by requiring at least 9.3% Mn.

In response, Applicants amend claim 1 to recite that Mn is present in an amount of at least 18.7 at%. It is respectfully submitted that this amendment renders the rejection moot. Accordingly, reconsideration and withdrawal of this rejection are requested.

EP 1260973 to HARIGAYA and HARIGAYA '346

As an initial matter, EP1260973[1] and Harigaya '346 are family members, and so the rejections over each of these documents will be addressed together.

Claims 1, 2, 4 and 5 are asserted to be anticipated by the HARIGAYA documents, but does not state where the limitations of the current claims are taught in HARIGAYA. Nevertheless, the rejection states that the rejection can be obviated by reciting that the recording layer comprise at least 9.3% Mn.

As discussed above with respect to SUZUKI, claim 1 has been amended to recite that Mn is present in an amount of at least 18.7 at%. It is respectfully submitted that this amendment renders this rejection moot. Accordingly, reconsideration and withdrawal of this rejection are requested.

MATSUNAGA (Phys. Rev. B) in view of TOMINAGA '012

Claims 1, 2, 4, and 5 are rejected as obvious over MATSUNAGA in view of TOMINAGA. The rejection asserts that MATSUNAGA teaches an $Ag_{3.4}In_{3.7}Sb_{76.4}Te_{6.5}$ composition with an A7 structure that attains a c/a of 2.649 at 723 K. The rejection asserts that it would have been obvious in view of TOMIONAGA to add less than 5% of additives such as Ti, Zr, Hf, V, Nb, Ta, W, Mo and/or Mn to improve reliability and other properties. The rejection then speculates that the resulting composition could be heated to 723 K with a reasonable

[1] The rejection refers to "EP 1260983." It is believed that this is a typographical error, and that the document referred to is actually EP 1260973.

expectation of maintaining the A7 structure. The rejection also states that the rejection can be obviated by reciting that the recording layer comprise at least 9.3% Mn.

This rejection does not even make out a *prima facie* case of obviousness, because there is no reason to modify MATSUNAGA to obtain the presently-claimed composition, and the assertion that such a composition would have the properties of the presently claimed articles of manufacture at 723 K is pure unwarranted speculation.

Nevertheless, as discussed above with respect to SUZUKI, claim 1 has been amended to recite that Mn is present in an amount of at least 18.7 at%. It is respectfully submitted that this amendment renders this rejection moot. Accordingly, reconsideration and withdrawal of this rejection are requested.

Claim Rejection of August 25, 2006 under 35 U.S.C. § 112

The Office Action rejects claims 1, 2, 4 and 5 under 35 USC § 112, first paragraph. The rejection acknowledges that the specification is enabling for MgInSbTeSb having axial ratio *c/a* as recited in claim 1, but asserts that the specifically-recited ratio *c/a* is not enabled in the absence of Ge and In. The rejection implies that amending claim 1 to recite Ge and In would obviate this rejection.

In response, claim 1 is amended to recite Ge and In in the recording layer. Thus, it is respectfully submitted that this rejection is now moot and that this amendment obviates the rejection. Accordingly, reconsideration and withdrawal of this rejection are requested.

CONCLUSION

In view of the foregoing remarks and amendments, Applicants respectfully submit that the claims are allowable and in condition for allowance.

In this regard, it is noted that the Examiner suggested amending the Mn content to "at least 9.3% Mn," and the Applicants have amended the claims to recite that Mn is included in an amount of at least 18.7 at%. By the present amendment, Applicants do not disclaim or surrender amounts of Mn between 9.3% and 18.7%, and no such estoppel should be inferred.

Moreover, it is respectfully submitted that the issues alluded to in the Advisory Action have been adequately addressed, such that the double-patenting and obviousness rejections need not be made.

Any comments or questions concerning this application can be directed to the undersigned at the telephone number given below.

Respectfully submitted,
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January 23, 2007
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